

Refer to side 2 of NOTETAKING handout:

A museum has 7 paintings to hang and only 3 vacant locations, each of which will hold a painting. In how many different ways can the three locations be filled by the paintings?

$$P(7,3) = \frac{7!}{(7-3)!} = \frac{7 \cdot 6 \cdot 5 \cdot \cancel{4!}}{\cancel{4!}} = 210$$